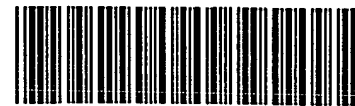


RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/529,749
Source: TFWO
Date Processed by STIC: 09/08/2006

ENTERED



IFWO

RAW SEQUENCE LISTING

DATE: 09/08/2006

PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

Input Set : A:\10529749.txt

Output Set: N:\CRF4\09082006\J529749.raw

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3 <110> APPLICANT: Japan Science and Technology Agency
4     KURODA, Shunichi
5     TANIZAWA, Katsuyuki
6     KONDO, Akihiko
7     UEDA, Masakazu
8     SENO, Masaharu
10 <120> TITLE OF INVENTION: Hollow Protein Nanoparticles, and Drug Using the Same
12 <130> FILE REFERENCE: 1035-579 / P023P08US
14 <140> CURRENT APPLICATION NUMBER: US 10/529,749
15 <141> CURRENT FILING DATE: 2005-03-30
17 <150> PRIOR APPLICATION NUMBER: PCT/JP2003/015003
18 <151> PRIOR FILING DATE: 2003-11-25
20 <150> PRIOR APPLICATION NUMBER: JP 2002-339925
21 <151> PRIOR FILING DATE: 2002-11-22
23 <160> NUMBER OF SEQ ID NOS: 6
25 <170> SOFTWARE: MS Word
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 1218
29 <212> TYPE: DNA
30 <213> ORGANISM: Hepatitis B virus
32 <220> FEATURE:
33 <221> NAME/KEY: CDS
34 <222> LOCATION: (1)..(1218)
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37 atg aga tct ttg ttg atc ttg gtt ttg tgt ttc ttg cca ttg gct gct      48
38 Met Arg Ser Leu Leu Ile Leu Val Leu Cys Phe Leu Pro Leu Ala Ala
39   1           5           10           15
41 ttg ggt aag gtt cga caa ggc atg ggg acg aat ctt tct gtt ccc aat      96
42 Leu Gly Lys Val Arg Gln Gly Met Gly Thr Asn Leu Ser Val Pro Asn
43           20           25           30
45 cct ctg gga ttc ttt ccc gat cac cag ttg gac cct gcg ttc gga gcc      144
46 Pro Leu Gly Phe Phe Pro Asp His Gln Leu Asp Pro Ala Phe Gly Ala
47           35           40           45
49 aac tca aac aat cca gat tgg gac ttc aac ccc aac aag gat caa tgg      192
50 Asn Ser Asn Asn Pro Asp Trp Asp Phe Asn Pro Asn Lys Asp Gln Trp
51   50           55           60
53 cca gag gca aat cag gta gga gcg gga gca ttc ggg cca ggg ttc acc      240
54 Pro Glu Ala Asn Gln Val Gly Ala Gly Ala Phe Gly Pro Gly Phe Thr
55   65           70           75           80
57 cca cca cac ggc ggt ctt ttg ggg tgg agc cct cag gct cag ggc ata      288
58 Pro Pro His Gly Gly Leu Leu Gly Trp Ser Pro Gln Ala Gln Gly Ile
59           85           90           95
61 ttg aca aca gtg cca gca gca cct cct cct gcc tcc acc aat cgg cag      336

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RAW SEQUENCE LISTING

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PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

Input Set : A:\10529749.txt

Output Set: N:\CRF4\09082006\J529749.raw

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62 Leu Thr Thr Val Pro Ala Ala Pro Pro Pro Ala Ser Thr Asn Arg Gln
63          100          105          110
65 tca gga aga cag cct act ccc atc tct cca cct cta aga gac agt cat 384
66 Ser Gly Arg Gln Pro Thr Pro Ile Ser Pro Pro Leu Arg Asp Ser His
67          115          120          125
69 cct cag gcc atg cag tgg aat tcc aca aca ttc cac caa gct ctg cta 432
70 Pro Gln Ala Met Gln Trp Asn Ser Thr Thr Phe His Gln Ala Leu Leu
71          130          135          140
73 gat ccc aga gtg agg ggc cta tat ttt cct gct ggt ggc tcc agt tcc 480
74 Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala Gly Gly Ser Ser Ser
75 145          150          155          160
77 gga aca gta aac cct gtt ccg act act gcc tca ccc ata tct ggg gac 528
78 Gly Thr Val Asn Pro Val Pro Thr Thr Ala Ser Pro Ile Ser Gly Asp
79          165          170          175
81 cct gca ccg aac atg gag aac aca aca tca gga ttc cta gga ccc ctg 576
82 Pro Ala Pro Asn Met Glu Asn Thr Thr Ser Gly Phe Leu Gly Pro Leu
83          180          185          190
85 ctc gtg tta cag gcg ggg ttt ttc ttg ttg aca aga atc ctc aca ata 624
86 Leu Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile
87          195          200          205
89 cca cag agt cta gac tcg tgg tgg act tct ctc aat ttt cta ggg gga 672
90 Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly
91          210          215          220
93 gca ccc acg tgt cct ggc caa aat tcg cag tcc cca acc tcc aat cac 720
94 Ala Pro Thr Cys Pro Gly Gln Asn Ser Gln Ser Pro Thr Ser Asn His
95 225          230          235          240
97 tca cca acc tct tgt cct cca att tgt cct ggc tat cgc tgg atg tgt 768
98 Ser Pro Thr Ser Cys Pro Pro Ile Cys Pro Gly Tyr Arg Trp Met Cys
99          245          250          255
101 ctg cgg cgt ttt atc ata ttc ctc ttc atc ctg ctg cta tgc ctc atc 816
102 Leu Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Leu Cys Leu Ile
103          260          265          270
105 ttc ttg ttg gtt ctt ctg gac tac caa ggt atg ttg ccc gtt tgt cct 864
106 Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro
107          275          280          285
109 cta ctt cca gga aca tca acc acc agc acg ggg cca tgc aag acc tgc 912
110 Leu Leu Pro Gly Thr Ser Thr Thr Ser Thr Gly Pro Cys Lys Thr Cys
111          290          295          300
113 acg att cct gct caa gga acc tct atg ttt ccc tct tgt tgc tgt aca 960
114 Thr Ile Pro Ala Gln Gly Thr Ser Met Phe Pro Ser Cys Cys Cys Thr
115 305          310          315          320
117 aaa cct tcg gac gga aac tgc act tgt att ccc atc cca tca tcc tgg 1008
118 Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp
119          325          330          335
121 gct ttc gca aga ttc cta tgg gag tgg gcc tca gtc cgt ttc tcc tgg 1056
122 Ala Phe Ala Arg Phe Leu Trp Glu Trp Ala Ser Val Arg Phe Ser Trp
123          340          345          350
125 ctc agt tta cta gtg cca ttt gtt cag tgg ttc gta ggg ctt tcc ccc 1104
126 Leu Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val Gly Leu Ser Pro

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DATE: 09/08/2006

PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

Input Set : A:\10529749.txt

Output Set: N:\CRF4\09082006\J529749.raw

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127          355          360          365
129 act gtt tgg ctt tca gtt ata tgg atg atg tgg tat tgg ggg cca agt 1152
130 Thr Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr Trp Gly Pro Ser
131          370          375          380
133 ctg tac aac atc ttg agt ccc ttt tta cct cta tta cca att ttc ttt 1200
134 Leu Tyr Asn Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro Ile Phe Phe
135 385          390          395          400
137 tgt ctt tgg gta tat att 1218
138 Cys Leu Trp Val Tyr Ile
139          405
142 <210> SEQ ID NO: 2
143 <211> LENGTH: 406
144 <212> TYPE: PRT
145 <213> ORGANISM: Hepatitis B virus
147 <400> SEQUENCE: 2
148 Met Arg Ser Leu Leu Ile Leu Val Leu Cys Phe Leu Pro Leu Ala Ala
149 1 5 10 15
151 Leu Gly Lys Val Arg Gln Gly Met Gly Thr Asn Leu Ser Val Pro Asn
152 20 25 30
154 Pro Leu Gly Phe Phe Pro Asp His Gln Leu Asp Pro Ala Phe Gly Ala
155 35 40 45
157 Asn Ser Asn Asn Pro Asp Trp Asp Phe Asn Pro Asn Lys Asp Gln Trp
158 50 55 60
160 Pro Glu Ala Asn Gln Val Gly Ala Gly Ala Phe Gly Pro Gly Phe Thr
161 65 70 75 80
163 Pro Pro His Gly Gly Leu Leu Gly Trp Ser Pro Gln Ala Gln Gly Ile
164 85 90 95
166 Leu Thr Thr Val Pro Ala Ala Pro Pro Ala Ser Thr Asn Arg Gln
167 100 105 110
169 Ser Gly Arg Gln Pro Thr Pro Ile Ser Pro Pro Leu Arg Asp Ser His
170 115 120 125
172 Pro Gln Ala Met Gln Trp Asn Ser Thr Thr Phe His Gln Ala Leu Leu
173 130 135 140
175 Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala Gly Gly Ser Ser Ser
176 145 150 155 160
178 Gly Thr Val Asn Pro Val Pro Thr Thr Ala Ser Pro Ile Ser Gly Asp
179 165 170 175
181 Pro Ala Pro Asn Met Glu Asn Thr Thr Ser Gly Phe Leu Gly Pro Leu
182 180 185 190
184 Leu Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile
185 195 200 205
187 Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly
188 210 215 220
190 Ala Pro Thr Cys Pro Gly Gln Asn Ser Gln Ser Pro Thr Ser Asn His
191 225 230 235 240
193 Ser Pro Thr Ser Cys Pro Pro Ile Cys Pro Gly Tyr Arg Trp Met Cys
194 245 250 255
196 Leu Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Leu Cys Leu Ile
197 260 265 270

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RAW SEQUENCE LISTING

DATE: 09/08/2006

PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

Input Set : A:\10529749.txt

Output Set: N:\CRF4\09082006\J529749.raw

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199 Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro
200      275      280      285
202 Leu Leu Pro Gly Thr Ser Thr Thr Ser Thr Gly Pro Cys Lys Thr Cys
203      290      295      300
205 Thr Ile Pro Ala Gln Gly Thr Ser Met Phe Pro Ser Cys Cys Cys Thr
206 305      310      315      320
208 Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp
209      325      330      335
211 Ala Phe Ala Arg Phe Leu Trp Glu Trp Ala Ser Val Arg Phe Ser Trp
212      340      345      350
214 Leu Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val Gly Leu Ser Pro
215      355      360      365
217 Thr Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr Trp Gly Pro Ser
218      370      375      380
220 Leu Tyr Asn Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro Ile Phe Phe
221 385      390      395      400
223 Cys Leu Trp Val Tyr Ile
224      405
227 <210> SEQ ID NO: 3
228 <211> LENGTH: 27
229 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
232 <220> FEATURE:
233 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
235 <400> SEQUENCE: 3
236 gccggtaccg cgagcttacc agttctc      27
239 <210> SEQ ID NO: 4
240 <211> LENGTH: 27
241 <212> TYPE: DNA
242 <213> ORGANISM: Artificial Sequence
244 <220> FEATURE:
245 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
247 <400> SEQUENCE: 4
248 gccctcgagg aaactaagtt tcttggt      27
251 <210> SEQ ID NO: 5
252 <211> LENGTH: 30
253 <212> TYPE: DNA
254 <213> ORGANISM: Artificial Sequence
256 <220> FEATURE:
257 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
259 <400> SEQUENCE: 5
260 gccctcgaga ccatggacat tgaccggtat      30
263 <210> SEQ ID NO: 6
264 <211> LENGTH: 39
265 <212> TYPE: DNA
266 <213> ORGANISM: Artificial Sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
271 <400> SEQUENCE: 6

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RAW SEQUENCE LISTING

DATE: 09/08/2006

PATENT APPLICATION: US/10/529,749

TIME: 08:55:25

Input Set : A:\10529749.txt

Output Set: N:\CRF4\09082006\J529749.raw

272 gccgagctcc taaacgcgtc cacattgaga ttcccgaga

39

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/529,749

DATE: 09/08/2006

TIME: 08:55:26

Input Set : A:\10529749.txt

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